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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/647,926	10/16/2000	Takuya Mashimo	198150US2SPC	6871
22850	7590	09/09/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			ROY, SIKHA	
			ART UNIT	PAPER NUMBER
			2879	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/647,926	<b>Applicant(s)</b> MASHIMO ET AL.	
	<b>Examiner</b> Sikha Roy	<b>Art Unit</b> 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-7 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 8 is/are rejected.
- 7) ☒ Claim(s) 3,4,9-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0101,1102,0103</u> . | 6) <input checked="" type="checkbox"/> Other: <u>0603,0604</u> .                        |

## DETAILED ACTION

### *Specification*

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,743,778 to Arimoto et al.

Regarding claim 1 Arimoto discloses (Figs. 1, 7A column 4 lines 55-67, column 5 lines 1-17) a cathode ray tube comprising a vacuum envelope including a flat panel 3 which has a substantially rectangular effective portion having a flat outer surface and a phosphor screen 7 formed on the inner surface and a skirt portion (glass wall portion) 9 provided along the peripheral part of the effective portion and extending perpendicularly to the effective portion, a funnel 1 bonded to the skirt portion, an electron gun arranged in the neck portion for emitting electron beams, a reinforcing band 10 attached round

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the outer surface of the glass panel 3 to the skirt portion so that it is at a position closer to the outer surface of the effective portion than to the central portion of the skirt portion in a direction of the tube axis.

Regarding claim 2 Arimoto discloses (Figs. 1 and 7A column 9 lines 18-40) all the limitations of claim 1. Furthermore it is clearly evident from Fig. 7A the reinforcing band (shrink band) 32 is attached round the outer surface of the panel such that the distance 'a' in the direction of the tube from bonding part of the panel and the funnel to the end of the reinforcing band 32 on the outer surface side of the effective portion and the distance 'h' in the direction of the tube axis from the bonding part to the central position of the outer surface of the effective portion are equal and hence satisfy the claimed relationship  $a \geq 0.9h$ .

Regarding claim 8 Arimoto et al. disclose all the limitations which are same as of claim 1 and additionally it is evident from Figs. 1 and 7A that the angle between the outer surface of the skirt portion from the mold matching line to the outer surface of the effective portion and the direction of the tube axis is zero.

Claims 1 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by 6,534,909 to Kim.

Regarding claim 1 Kim discloses (Fig. 1 and 6, column 1 lines 14-40, column 3 lines 13-30) a cathode ray tube comprising a vacuum envelope including a flat panel 1 which has a substantially rectangular effective portion having a flat outer surface and a phosphor screen 1a formed on the inner surface and a skirt portion provided along the peripheral part of the effective portion and extending perpendicularly to the effective

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portion, a funnel 2 bonded to the skirt portion, an electron gun arranged in the neck portion for emitting electron beams, a reinforcing band 11 (implosion protection band) attached round the outer surface of the glass panel 1 to the skirt portion so that it is at a position closer to the outer surface of the effective portion than to the central portion of the skirt portion in a direction of the tube axis.

Regarding claim 8 Kim discloses all the limitations which are same as of claim 1 and additionally it is evident from Fig. 6 that the angle between the outer surface of the skirt portion from the mold matching line to the outer surface of the effective portion and the direction of the tube axis is zero.

### ***Allowable Subject Matter***

Claims 5-7 are allowed over the prior art of record.

Regarding claims 5 and 6 the prior art of record neither teaches nor suggests a cathode ray tube with reinforcing band having all the limitations as claimed and particularly the limitation comprising the distance in the direction of the tube axis from bonding part of the panel and the funnel to the mold matching line represented by  $c$  and the distance in the direction of the tube axis from the bonding part to the central position of the outer surface of the effective portion represented by  $h$  satisfying  $c \geq 0.8h$ .

Claim 7 is allowed because of its dependency status from claim 6.

Claims 3 and 4 are objected to as being dependent upon a rejected base claim 2, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Regarding claim 3 the prior art of record neither teaches nor suggests a cathode ray tube with reinforcing band having all the limitations as claimed and particularly the limitation comprising the distance in the direction of the tube axis from bonding part of the panel and the funnel to the end of the bent portion on the electron gun side represented by  $b$  and the distance in the direction of the tube axis from the bonding part to the central position of the outer surface of the effective portion represented by  $h$  satisfying  $b \geq 0.7h$ .

Claim 4 would be allowable because of its dependency status from claim 3.

Claims 9-11 are objected to as being dependent upon a rejected base claim 8, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 9 the prior art of record neither teaches nor suggests a cathode ray tube with reinforcing band having all the limitations as claimed and particularly the limitation comprising the angle  $\theta$  between the outer surface of the skirt portion from the mold matching line of the panel to the outer surface of the effective portion and the direction of the tube axis is zero only at each corner of the panel.

Claim 10 essentially recites the same limitation as of claim 5 and hence would be allowable for the same reason.

Claim 11 would be allowable because of its dependency status from claim 10.

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### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following prior art references are cited to further show the state of the art with respect to cathode ray tube with implosion proof band.

U.S. Patent 6,342,760 to Mashimo et al.

U.S. Patent 6,501,215 to Kim.

U.S. Patent 6,353,283 to Ghosh et al.

U.S. Patent 6,509,683 to Lee.

U.S. Patent 6,590,331 to Soneda et al.

### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (571) 272-2463. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*S.R.*

Sikha Roy  
Patent Examiner  
Art Unit 2879

*msg 9/7/04*  
*Mariceli Santiago*  
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